

PLEASE AMEND THE ABOVE-IDENTIFIED APPLICATION AS FOLLOWS:

In The Claims:

Add new claims 513-529 as follows.

513. (NEW) The process according to claim 284, wherein said nucleic acid of interest comprises a member selected from the group consisting of *Streptococcus pyogenes*, *Neisseria meningitidis*, *Staphylococcus aureus*, *Candida albicans*, *Pseudomonas aeruginosa*, *Neisseria gonorrhoeae*, *Mycobacterium tuberculosis*, and any combinations of the foregoing. --

514. (NEW) The process according to claim 284, wherein said one or more oligo- or polynucleotides comprise a member selected or derived from the group consisting of *Streptococcus pyogenes*, *Neisseria meningitidis*, *Staphylococcus aureus*, *Candida albicans*, *Pseudomonas aeruginosa*, *Neisseria gonorrhoeae*, *Mycobacterium tuberculosis*, and any combinations of the foregoing. --

515. (NEW) The process according to claim 337, wherein said labeled oligo- or polynucleotide of interest comprises a member selected or derived from the group consisting of *Streptococcus pyogenes*, *Neisseria meningitidis*, *Staphylococcus aureus*, *Candida albicans*, *Pseudomonas aeruginosa*, *Neisseria gonorrhoeae*, *Mycobacterium tuberculosis*, and any combinations of the foregoing. --

516. (NEW) The process according to claim 396, wherein said nucleic acid of interest comprises a member selected or derived from the group consisting of *Streptococcus pyogenes*, *Neisseria meningitidis*, *Staphylococcus aureus*, *Candida albicans*, *Pseudomonas aeruginosa*, *Neisseria gonorrhoeae*, *Mycobacterium tuberculosis*, and any combinations of the foregoing. --

517. (NEW) The process according to claim 513, wherein said nucleic acid of interest comprises *Neisseria gonorrhoeae*. --

518. (NEW) The process according to claim 514, wherein said one or more oligo- or polynucleotides comprise *Neisseria gonorrhoeae*. --

-- 519. (NEW) The process according to claim 323, wherein said bacterium is *Neisseria gonorrhoeae* and said antibiotic is selected from the group consisting of penicillin, tetracycline, aminoglycoside and combinations thereof. --

-- 520. (NEW) A process for determining the sequence of a nucleic acid of interest, comprising the steps of:

providing or generating labeled nucleic acid fragments complementary to said nucleic acid of interest or to a portion thereof, each of said labeled fragments comprising one or more modified nucleotides which comprise detectable or self-indicating labels and said one or more modified nucleotides being modified on the sugar, phosphate or base moieties thereof;

detecting the labeled nucleic acid fragments within a sequencing gel; and determining the sequence of said nucleic acid of interest. --

521. (NEW) A process for determining the sequence of a nucleic acid of interest, comprising the step of detecting within a sequencing gel one or more labeled nucleic acid fragments complementary to said nucleic acid of interest or to a portion thereof, each of said labeled fragments comprising one or more modified nucleotides which comprise detectable or self-indicating labels, said one or more modified nucleotides being modified on the sugar, phosphate or base moieties thereof. --

-- 522. (NEW) The process according to claims 520 or 521, wherein said modified nucleotide or nucleotides comprise a member selected from the group consisting of:

(i) a nucleotide having the formula

PM—SM—BASE—Sig

wherein

PM is a phosphate moiety,

SM is a furanose moiety,

BASE is a pyrimidine, purine 7-deazapurine, and

Sig is a detectable moiety,

wherein PM is attached to the furanose moiety SM at a position selected from the group consisting of the 2', the 3' and the 5' position, or any combination thereof, BASE is attached to the 1' position of SM from the N¹ position when BASE is a pyrimidine or the N⁹ position when BASE is a purine or a 7-deazapurine, and Sig is covalently attached to BASE at a position

other than the C⁵ position when BASE is a pyrimidine, at a position other than the C⁸ position when BASE is a purine, and at a position other than the C⁷ position when BASE is a 7-deazapurine;

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b1*

*X
Con*

(iii) a nucleotide having the formula

Sig

|
PM - SM - BASE

wherein

PM is a phosphate moiety,

SM is a furanose moiety,

BASE is a pyrimidine, purine or 7-deazapurine, and

Sig is a detectable moiety,

said PM being attached to the furanose moiety SM at a position selected from the group consisting of the 2', 3', and 5' positions, or any combination thereof, said BASE being attached to the 1' position of SM from the N¹ position when BASE is a pyrimidine or the N⁹ position when BASE is a purine or 7-deazapurine, and Sig is covalently attached to SM directly or through a linkage group; and

(iii) a nucleotide having the formula

Sig - PM - SM - BASE

wherein

PM is a phosphate moiety,

SM is a furanose moiety,

BASE is a pyrimidine, purine or 7-deazapurine, and

Sig is detectable moiety,

wherein PM is attached to the furanose moiety SM at a position selected from the group consisting of the 2', the 3' and the 5' position, or any combination thereof, BASE is attached to the 1' position of SM from the N¹ position when BASE is a pyrimidine or the N⁹ position when BASE is a purine, and Sig is covalently attached to PM. --

-- 523. (NEW) The process according to claims 520 or 521, wherein said modified nucleotide

Sig

PM—SM—BASE

wherein

PM is a phosphate moiety,

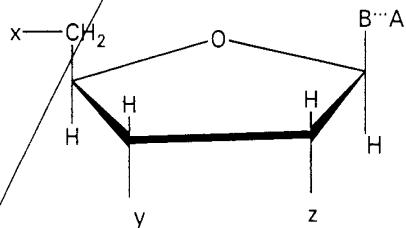
SM is a furanose moiety,

BASE is a pyrimidine, purine or 7-deazapurine, and

Sig is a detectable moiety,

said PM being attached to the furanose moiety SM at a position selected from the group consisting of the 2', 3', and 5' positions, or any combination thereof, said BASE being attached to the 1' position of SM from the N¹ position when BASE is a pyrimidine or the N⁹ position when BASE is a purine or 7-deazapurine, and Sig is covalently attached to SM directly or through a linkage group; and

-- 524. (NEW) The process according to claims 520 or 521, wherein said modified nucleotide or nucleotides have the structure:



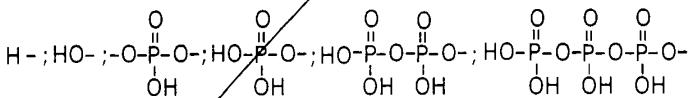
wherein B represents a purine, a 7-deazapurine or a pyrimidine moiety suitable for incorporation into a polynucleotide and covalently bonded to the C¹-position of the furanose moiety, provided that when B is a purine or 7-deazapurine, the furanose moiety is attached at the N⁹ position of the purine or deazapurine, and when B is a pyrimidine, the furanose moiety is attached at the N¹ position of the pyrimidine;

wherein A represents at least three carbon atoms and is an indicator molecule that is self-indicating;

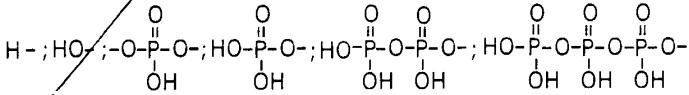
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wherein B and A are covalently attached directly or through a linkage group,
said linkage group not interfering substantially with detection of A;

wherein if B is a purine, A is attached to the 8-position of the purine, if B is a 7-deazapurine, A is attached to the 7-position of the deazapurine, and if B is a pyrimidine, A is attached to the 5-position of the pyrimidine; and

wherein x comprises a member selected from the group consisting of:



wherein y comprises a member selected from the group consisting of:



wherein z comprises a member selected from the group consisting of H- and HO-.

-- 525. (NEW) The process according to claim 520, wherein the detecting step comprises localizing said labeled nucleic acid or said labeled nucleic acid fragments by means of self-indicating nucleotide or nucleotides. --

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-- 526. (NEW) The process according to claims 520 or 521, wherein said nucleic acid of interest comprises or is derived from *Neisseria gonorrhoeae*. --

-- 527. (NEW) The process according to claim 332, wherein y and z comprise H. --

-- 528. (NEW) The process according to claim 348, wherein y and z comprise H. --

-- 529. (NEW) The process according to claim 524, wherein y and z comprise H. --

Dean L. Engelhardt, et al.

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Page 7 [Seventh Supplemental Amendment (Following Applicants' July 22, 1999
Communication) - July 30, 1999]

Amend claims 330 and 336 as follows:

Claim 330, line 1, after "wherein said" and before "step is"
change "incorporating" to -- providing -- .

Claim 336, line 1, after "wherein said" and before "step is"
change "incorporating" to -- providing -- .

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